Jinpei Guo

November 9, 2025

CONTACT INFORMATION

School of Computer Science,
Carnegie Mellon University, United States
5000 Forbes Ave, Pittsburgh, PA 15213, United States

Tel: +1-4128440907
jinpeig@andrew.cmu.edu
Homepage, GitHub

RESEARCH INTERESTS

Low-Level Computer Vision, Diffusion Models.

EDUCATION

Carnegie Mellon University, Pittsburgh, PA, United States — Aug 2024 – Dec 2025

Master, Computer Science

Shanghai Jiao Tong University, Shanghai, China — Sep 2020 – Jul 2024

Bachelor, Computer Science

PUBLICATIONS

$*$ denotes equal contribution

1. **Jinpei Guo**, Yifei Ji, Zheng Chen, Yufei Wang, Sizhuo Ma, Yong Guo, Yulun Zhang, Jian Wang, "Towards Redundancy Reduction in Diffusion Models for Efficient Video Super-Resolution," *arXiv*, 2025.
2. **Jinpei Guo**, Yifei Ji, Zheng Chen, Kai Liu, Min Liu, Wang Rao, Wenbo Li, Yong Guo, and Yulun Zhang, "OSCAR: One-Step Diffusion Codec for Image Compression Across Multiple Bit-rates," *Neural Information Processing Systems* (**NeurIPS**), 2025.
3. **Jinpei Guo**, Zheng Chen, Wenbo Li, Yong Guo, and Yulun Zhang, "Compression-Aware One-Step Diffusion Model for JPEG Artifact Removal," *International Conference on Computer Vision* (**ICCV**), 2025.
4. Tingyu Yang, Jue Gong, **Jinpei Guo**, Wenbo Li, Yong Guo, Yulun Zhang, "SODiff: Semantic-Oriented Diffusion Model for JPEG Compression Artifacts Removal," *Association for the Advancement of Artificial Intelligence* (**AAAI**), 2025.
5. Zheng Chen, Mingde Zhou, **Jinpei Guo**, Jiale Yuan, Yifei Ji, Yulun Zhang, "Steering One-Step Diffusion Model with Fidelity-Rich Decoder for Fast Image Compression," *Association for the Advancement of Artificial Intelligence* (**AAAI**), 2025.
6. Yang Li*, **Jinpei Guo***, Runzhong Wang, Hongyuan Zha, and Junchi Yan, "Fast T2T: Optimization Consistency Speeds Up Diffusion-Based Training-to-Testing Solving for Combinatorial Optimization," *Neural Information Processing Systems* (**NeurIPS**), 2024.
7. **Jinpei Guo**, Shaofeng Zhang, Runzhong Wang, Chang Liu, and Junchi Yan, "GMTR: Graph Matching Transformers," *IEEE International Conference on Acoustics, Speech and Signal Processing* (**ICASSP**), 2024.
8. Zhaoyu Li, **Jinpei Guo**, Xujie Si, "G4SATBench: Benchmarking and Advancing SAT Solving with Graph Neural Networks," *Transactions on Machine Learning Research* (**TMLR**), 2024.
9. Yang Li, **Jinpei Guo**, Runzhong Wang, and Junchi Yan, "From Distribution Learning in Training to Gradient Search in Testing for Combinatorial Optimization," *Neural Information Processing Systems* (**NeurIPS**), 2023.
10. Zhaoyu Li, **Jinpei Guo**, Yuhe Jiang, and Xujie Si, "Learning Reliable Interpretations with SATNet," *Neural Information Processing Systems* (**NeurIPS**), 2023.

Internship

Machine Learning Engineer Intern Apr 2024 – Jul 2024

Alibaba in Shanghai, China

Developed an LLM-driven time-series forecasting pipeline integrating a novel "time2text" embedding for sequential data modeling, improving generalization across diverse datasets and enabling unified prediction within a single framework.

Gift Fundings and Scholarship

- Snap Inc. Gift Funding, ¥108,000 2025
- Chiang Chen Overseas Graduate Fellowship (10 recipients nationwide), ¥360,000 2024
- SenseTime Scholarship (30 recipients nationwide), ¥20,000 2023
- Chinese National Scholarship, ¥8,000×2 2022, 2023
- Shanghai Scholarship, ¥8,000 2021

Skills

- Computing Skills: Algorithms, Data Structure, Machine Learning.
- Programming: Python, C/C++, Matlab, LaTeX.
- Programming Frameworks: Pytorch, Scikit-Learn, TensorFlow, Keras.